

1908

HAINES=HOUSER
COMBINED
HARVESTERS

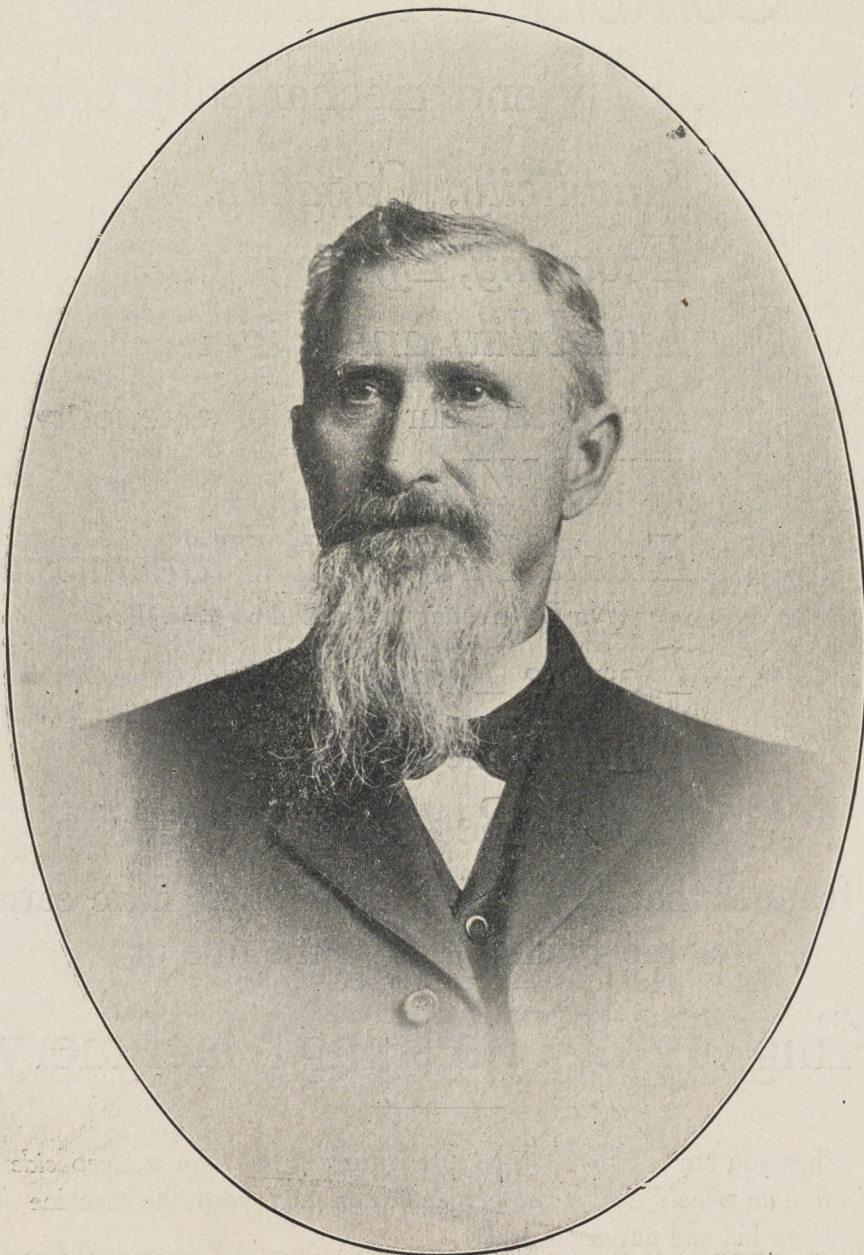


Houser & Haines Mfg. Co.

STOCKTON : SPOKANE : WALLA WALLA

1600 400
HOUSER & HAINES MFG. COMPANY
STOCKTON, CALIFORNIA

BRANCH OFFICES:
SPOKANE, WASH.
WALLA WALLA, WASH.



G. W. HAINES,
VICE PRESIDENT AND GENERAL MANAGER

The Haines-Houser Side-Hill Combined Harvesters

are theoretically and mechanically correct.

*Simplicity, Capacity,
Economy, Efficiency,
Durability and Light
Draft* are our claims of superiority.
*Wide Wheels,
Ewart Link Belt Transmission,*
*(No Big Gearing to Get Out of Line.)
Double Drive,
Double Leveling Device,
Roller Bearing Cylinder*

are features that insure Light Draft, and have earned
for the Haines-Houser the title of

“King of All Threshing Machinery”

When you buy a Harvester, *be sure when you put it on a steep side hill that both main wheels will stand perpendicular*, and keep the machine from sliding down hill and out of the grain.

Standing Grain Cut, Threshed, Re-cleaned and Sacked in One Operation at a cost of \$1 per acre. No Trouble with Hired Help. No Threshing Bill to Pay. All of the Profit for the Farmer.

The Haines-Houser Combined Harvesters

The necessity for correctly designed and well constructed harvesting machinery cannot be overestimated. The great prosperity of this country is due to its agricultural development. This development in turn is the result of agricultural machines which have made possible the planting and harvesting of immense crops. Unquestionably the Combined Harvester has been the greatest factor in the development of our great grain raising industry.

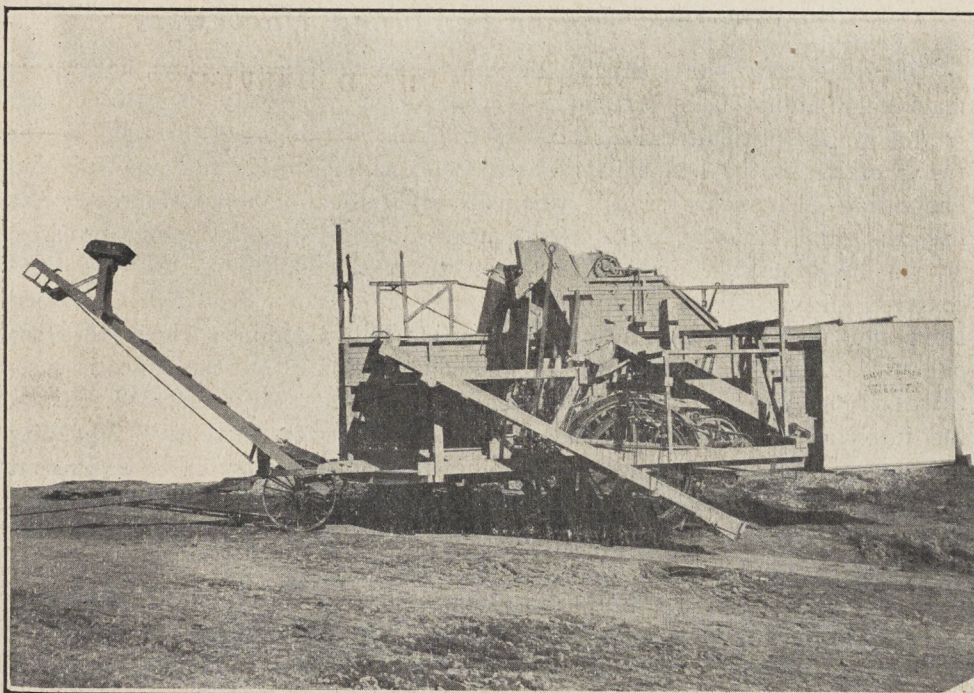
In constructing Combined Harvesters for the season of 1908 we have centered all our efforts on two models, viz: The Junior Side Hill Combined Harvester (see page 4) and the Baby Side Hill Combined Harvester (see page 5). All material entering into the construction of our machines is carefully selected and only skilled workmen are employed. Mr. George W. Haines, the inventor of these wonderful machines, and whose inventive ingenuity and ceaseless labor has brought the Haines-Houser Harvester up to its present standard of excellence, is still the active overseer of all departments, and personally inspects the construction of all harvesters, even to the smallest details.

Both sizes of our machines are alike in plan of construction. The only difference is in the size, capacity and draft. The Haines-Houser is strictly a double drive harvester. By this we mean that the power to run the machinery is derived, proportionately, from both of the main drive wheels, and it is plainly to be seen that two wheels will furnish more power than one and not be so apt to slip on soft land. Our new sack chute, that was introduced last season and proved highly satisfactory, also adds greater traction to the main wheel that drives the cylinder by placing the weight of the sacks directly on the wheel instead of on the frame of the harvester where it has a tendency to spring and warp the harvester frame, thus throwing the shafts out of line and causing great friction and loss of power.

Another feature that makes the Haines-Houser Harvester a winner and general favorite is the double leveling device which is used on all of our models. This great invention consists of two independent frames hinged to the rear of the machine and in which the two main wheels are journaled and permitted to work up and down in order to keep the harvester level on steep hills. At the front end of these frames and directly above, is a longitudinal shaft extending across the machine and on which there are pinions that engage cog racks that connect the shaft to the forward end of the swing frames. These racks are on opposite sides of the shaft, thus balancing the weight of the harvester on the shaft. The only power required to put the device in operation and level the machine is enough to overcome this balance. With a double leveling device the harvester is always the same elevation from the ground and permits the machine to be operated with the header down hill, as well as up hill.

The repairs for our harvesters are the most durable and inexpensive put out by any harvester concern. We carry a stock in nearly every town around which our machines operate, and it is a hobby with us to give our patrons prompt service and careful attention at all times.

JUNIOR SIDE HILL COMBINED HARVESTER



Main wheels.....	16 in. and 20 in.	Separator.....	36 in.
Width cut.....	14, 16, 18 ft.	Cylinder.....	26 in.
Horses required	24 to 26	Cleaner.....	Automatic Adjustable
Men required.....	4	Shoe.....	Improved Double
Capacity acres per day.....		30 to 40	

The Junior Harvester is designed especially to meet the requirements of the farmer who is operating on a large scale and has to cut 600 to 1200 acres yearly.

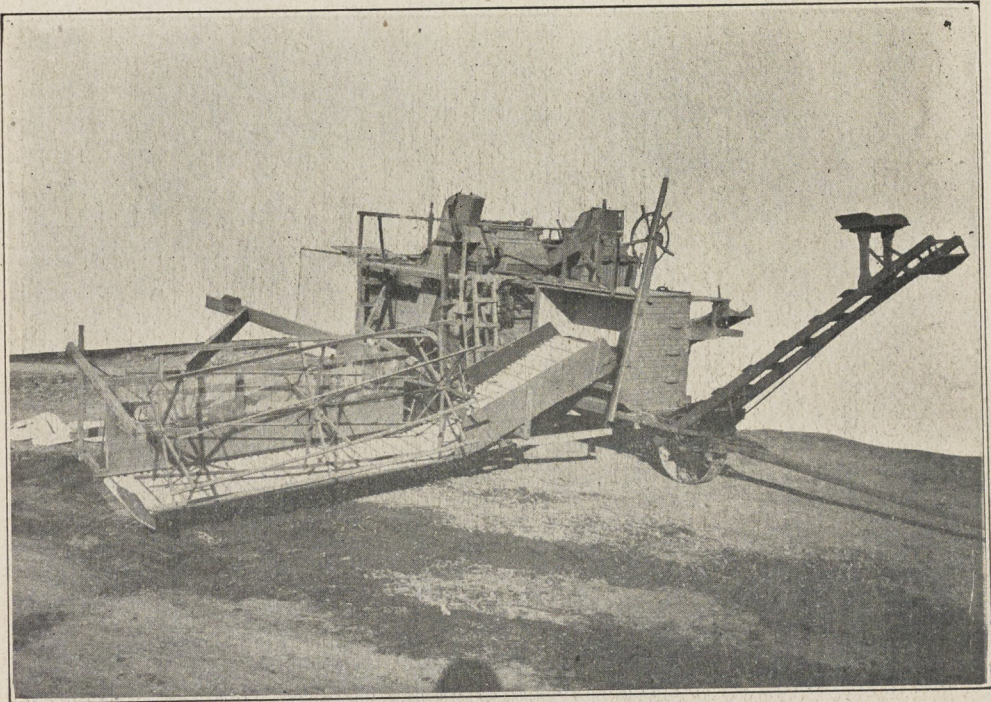
The above cut shows the construction of our elevated sacking platform and sack chute. The sack sewer sits up out of the dust where it is cool and comfortable. The sacks, of course, slide down the chute to the gate at lower end, thus throwing the weight directly on the main wheel instead of on the corner of the harvester frame, as is the case with harvesters not using this device.

The sacks are dumped immediately back of the main wheel and thus eliminates the danger of sacks rolling down hill under the machine and being torn.

The lower end of the sack chute is always the same distance from the ground, whether the harvester is operating with the header up hill or down hill. Our sack chute prevents the bursting of sacks and gives the harvester greater traction.

The Haines-Houser Harvesters are all painted green. This color makes the eye glad.

THE BABY SIDE HILL COMBINED HARVESTER

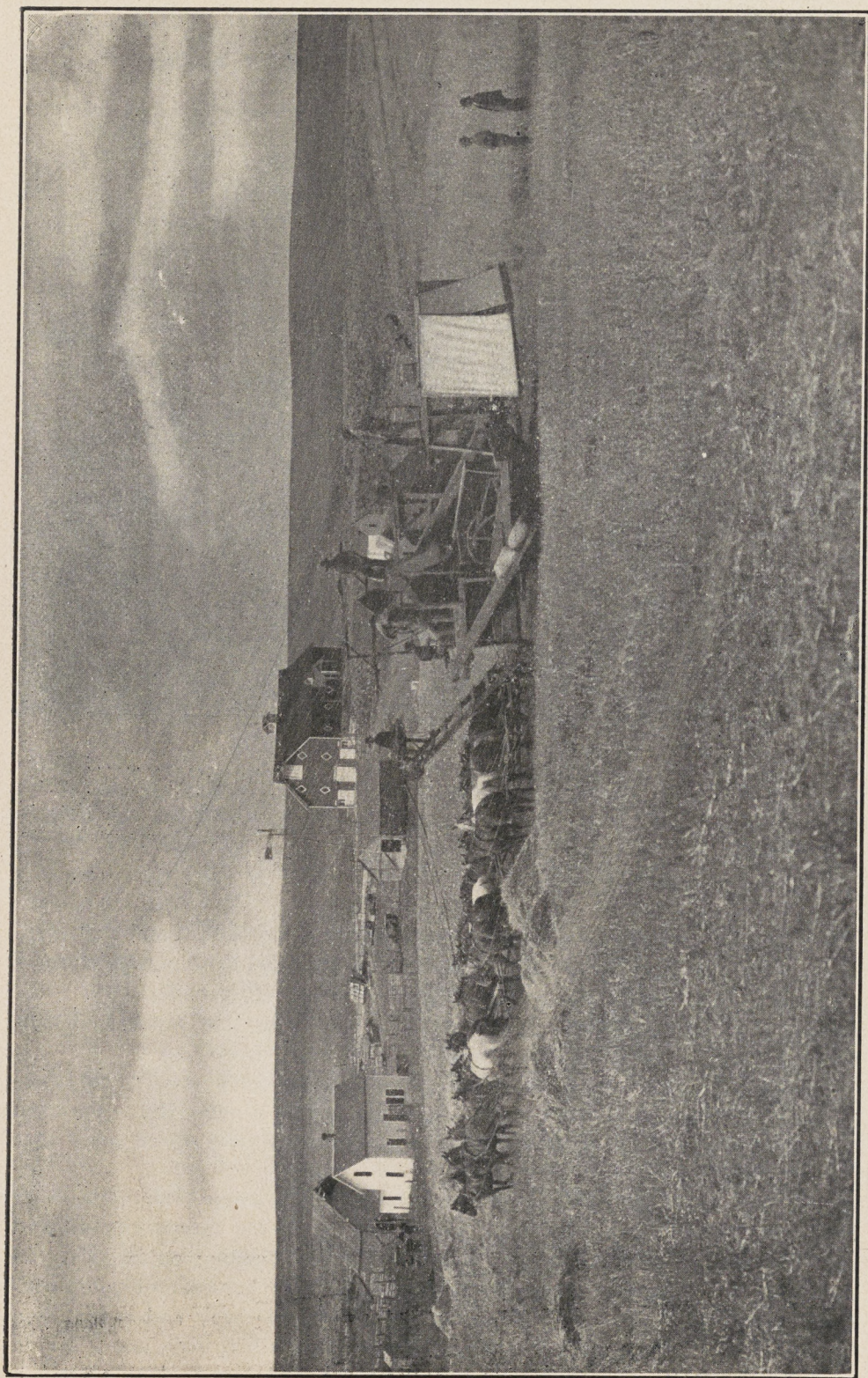


Main wheels.....	16 in. and 20 in.	Separator	30 in.
Width cut.....	12 and 14	Cylinder	24 in.
Horses required.....	18 to 20	Cleaner.....	Automatic Adjustable
Men required	4	Shoe.....	Improved Double
Capacity acres per day.....	25 to 30		

The above cut shows our Baby Haines-Houser Side Hill Combined Harvester with 14-foot cut header. This machine is intended for the small farmer who has from 200 to 600 acres to harvest each year. It is built on the same plan as our large harvester, the only difference being that it is smaller in every respect and much lighter in draft.

Notice the tiller wheel, on the front of the cylinder house, which raises and lowers the header. This gives the header tender a comfortable position, up and out of the dust, where he has an unobstructed view of the grain that is being cut.

Wherever our Baby Machine has been placed in competition with other harvesters it has always proven its superiority. It is the farmer's pride, and can be operated at less expense than the average heading outfit. Do you realize what this means? It means easy work for your horses, no trouble with hired help, every night a portion of your crop in the sack and saved, at a total cost of less than \$1.00 per acre. No threshing bill to pay, and a saving of several bushels per acre by only handling the grain once. Buy a Haines-Houser Harvester—it will increase your profits many fold.



FARM AND HOME OF ROBERT GUNNING, DAVENPORT, WASH., SHOWING ONE OF OUR HAINES-HOUSER COMBINED HAR-
VESTERS IN OPERATION. READ WHAT HE HAS TO SAY.

Davenport, Wash., Nov. 22, 1907.

Mr. A. R. Blewett, Spokane, Wash.

Dear Sir—Yours to hand and in reply will say, the Haines-Houser 16-foot cut, purchased from you the past season, has given me the best satisfaction.

I have bound grain after the cradle, then taken my station of four after the dropper, then to the Marsh Harvester, where two of us rode and bound, doing the work of four after the droppers; then came the binder, with which I have cut hundreds of acres. After all of these machines the steam thresher had to be hired at six to seven cents per bushel. Now your Combined Harvester comes, king over all ways of harvesting grain.

I cut 875 acres with your Haines-Houser 16-foot cut, with three boys and myself, hired two men, at a cost of 35 cents per acre. In former years the same three boys and myself worked on a header, had to hire three and four men, at a cost of fifty cents per acre, to put the grain in the stack. Then came the threshing bill.

This season I hired 300 acres headed, had to pay \$2.00 per acre, which cost me \$600.00; threshing bill, \$641.60. Had I done this with the Combined Harvester it would have cost me just \$100.00 for hired help, a saving of \$1141.60. Think of it, half the price of the Combined Harvester on these 300 acres in the two ways of harvesting. Then I can say I would have had from 1000 to 1200 bushels more grain. With the Combined Harvester no driving through grain with wagons and horses, no waste around on an average of six stack bottoms to the 160 acres, and no loss in the threshing machine putting grain in the straw stack on account of the grain being cut too damp and in sweat, etc.

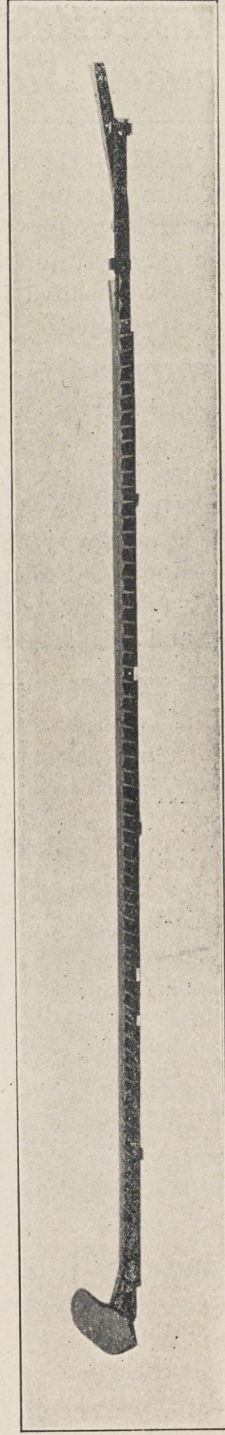
I claim you can get grain cleaner out of the straw from the sickle of the Combined Harvester right into the cylinder than any thresher can, after going into a derrick stack with the grain in a sweat, etc. With the Combined Harvester, at present prices of sacks, that it saves from fifty to twenty cents per acre in the sack bill as they are so much better filled than when filled by the average sack jig with the thresher. This in a few acres don't amount to much, but on 1000 acres is quite a saving.

I cut 300 acres of the hilliest land in Lincoln County and did it in less time than any 14-foot header ever cut the same field. If I only had 320 acres to harvest, I would have a 12 or 14 foot cut machine to do my harvest. Then, if the place was larger and you have horses to do the farm work, would increase the size of the machine.

In conclusion will say that the Combined Harvester is the only way to harvest grain and I am only sorry I did not buy one several years ago.

Yours truly,

ROBERT GUNNING.



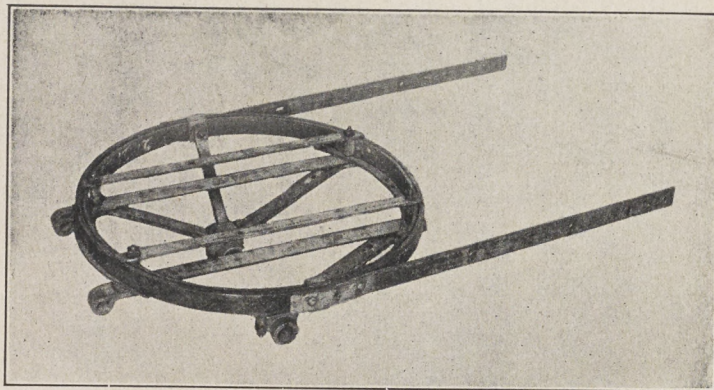
Angle Steel Sickle Bar.

Unexcelled Features of the 1908 Haines-Houser Side-Hill Combined Harvesters:

FRAME—The foundation or framework of any piece of machinery should be of first interest to an intending purchaser. The frame of our machine is the result of years of actual field experience and study. The lumber used is of the very best quality obtainable. Each piece carefully selected and painted before being bolted in place. The Haines-Houser frame must be seen to be fully appreciated.

WHEELS—Our wheels are the most substantial ever placed under a Combined Harvester. Machines are in use today that were built twenty years ago and the wheels have never been repaired. Our main wheels are all twenty inches wide and are fitted with angle iron grousers two and a half inches deep. Our grain wheels are sixteen inches wide and have two-inch grousers. These grousers reach down beneath the soft dirt and prevents the wheels from slipping, thus insuring perfect traction at all times. The header wheel is fifty-seven inches high and ten inches wide. Travels over rough ground easily and with less friction and draft than a small wheel.

THE FRONT WHEEL operates in a turntable, built of bar iron, to which the driver's ladder and seat is attached. This gives the advantage of having the driver directly over the team at all times, the seat swinging with the team. This feature



FRONT WHEEL TURN TABLE.

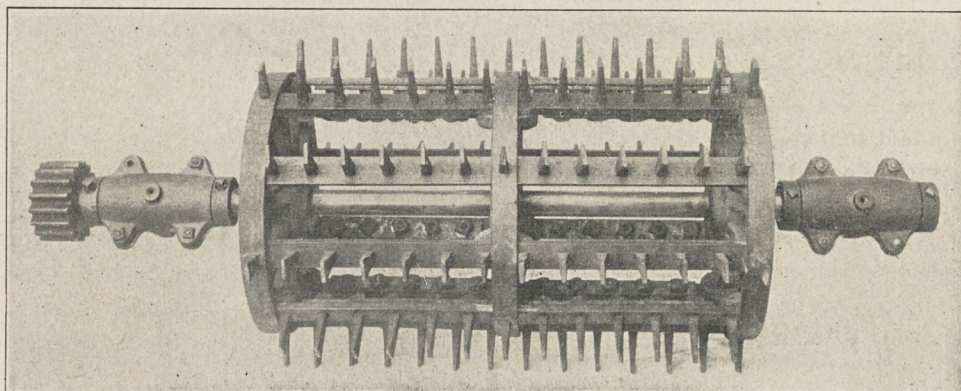
is very important, especially when turning on corners, etc. The driver is not compelled to lengthen and shorten his lines as is the case on the machines not constructed in this manner.

BRAKES—Both main wheels are fitted with brake bands eight inches wide and the levers are conveniently arranged so that they are easily accessible to any man on the machine. The driver also has a brake that controls the front wheel.

DRIVE—The Haines-Houser is strictly a double drive machine in every respect, the power to drive the internal mechanism being taken proportionately from each of the main drive wheels. Ewart link belting is used to transmit the power from the wheels to the machinery and this feature is largely re-

sponsible for the light draft of our machines. It is simple and inexpensive. We have no big gearing to get out of line, break and cause delays.

LEVELING DEVICE—This wonderful invention we have already described. All of our harvesters are constructed with this same device, which keeps the separator level on hills of twenty-eight degrees, and permits the machine to be operated with the header down hill equally as well as with the header up hill. Harvesters with double leveling devices never turn over on steep hills.

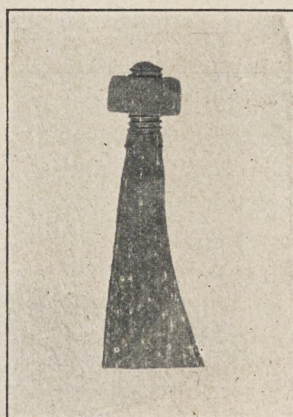


CYLINDER.

CYLINDER—Our cylinders are constructed of heavy material and thoroughly built, having ten bars and three cast iron heads that are securely keyed to a large steel shaft. The cylinder is driven by a small internal gear and pinion which are adjustable so as to take up any wear and to be made to mesh properly. This gearing is enclosed in an almost dust-proof casing and with an occasional oiling will last many seasons. The cylinder teeth that we use are made especially for our requirements, having a soft steel center with a hard steel casing on the outside. This gives us a tooth that is flexible and not brittle, and with great strength and wearing qualities.

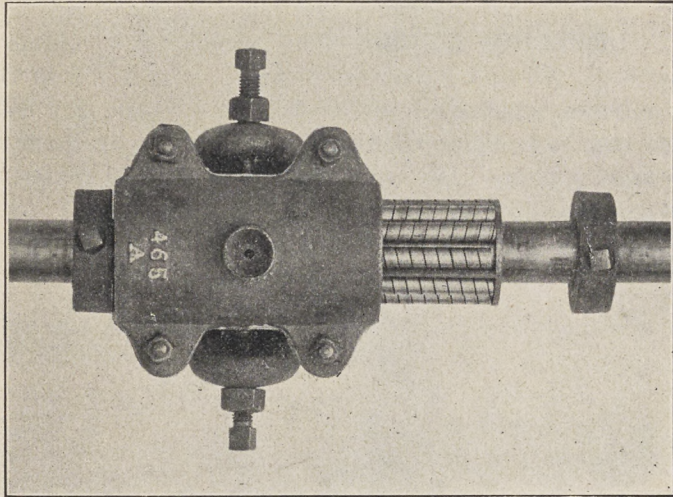
ROLLER BEARINGS—At an increased cost we equip and use on our cylinder, which runs at 950 revolutions per minute, under ordinary conditions, the best type of roller bearings used today. By doing this we reduce the friction of this important part, and consequently the number of horses required; save the owner a large oil bill and make the heating of our cylinder boxes an unknown event.

The rollers are flexible, thus allowing a uniform distribution of load and reducing the wear to a minimum. Machines have come to our notice in which the bearings have been in use five years and where it was impossible to detect any wear of the rollers or even locate the position of the bearing



CYLINDER TOOTH.

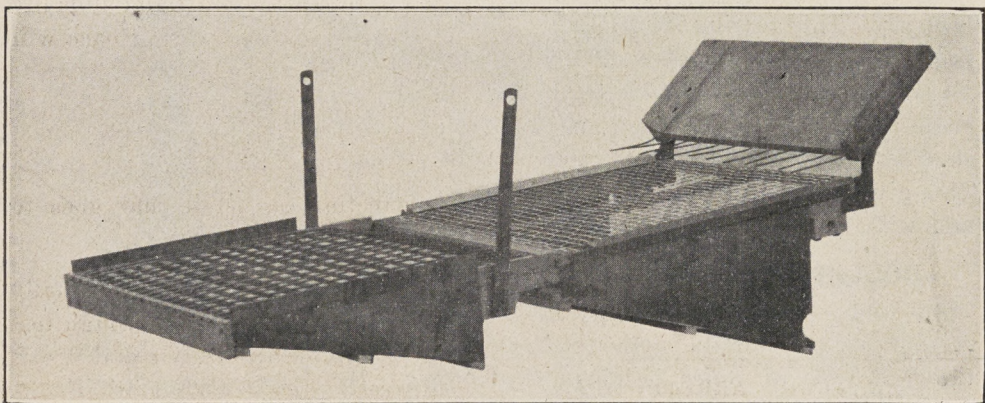
on the shaft. The spirals, while acting as oil reservoirs, also act as oil distributors. Our adjustable cylinder boxes are in addition pivoted, and are of the ball and socket type, adjusting themselves to the line of the shaft. They have been in use for ten years, giving entire satisfaction. The superiority of our combination of cylinder concaves, roller bearings and adjustable boxes, is attested by the fact that they are being adopted, even to the smallest details, by other combined harvester manufacturers.



ROLLER BEARINGS AND BOX.

RECLENER—Many improvements have been made on this part of the machine. The most important being the automatic leveling device on the screen, that keeps them level when the harvester is going up or down hill. The shake for the double gang of screens is of the ball and socket type. Its noiseless operation and reduction of friction are its main superior qualities.

SHOE—Our shoe is well known. It is greatly improved for this season and is designed especially to meet the requirements of the Northwest. The



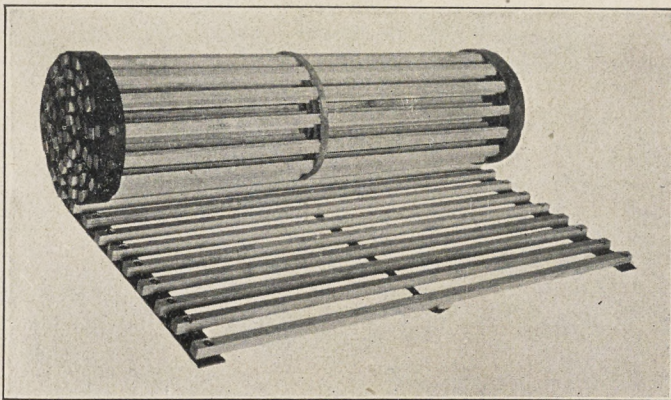
IMPROVED DOUBLE SHOE.

accompanying cut shows its construction. Note the long wire fingers which carries over the China lettuce and other troublesome weeds. The shoe is about five feet in length and occupies the full width of the separator. It has

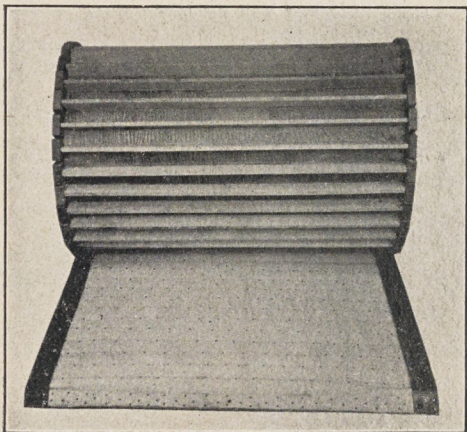
an end shake which is capable of giving the shoe different motions. The shoe is built in two sections and beneath each section there is a sheet iron apron that works the grain down into the augers. It is absolutely impossible for anything to lodge beneath our shoe.

SACK CHUTE—This feature of our machine has proven to be one of the most important improvements made for some time. The sack sewer's platform is elevated so that he is up out of the dust. The weight of the sacks is carried on the main wheels instead of on the corner of the harvester frame. In this manner the weight adds traction power to the main drive wheel, and relieves the harvester frame of any unnecessary strain.

STRAW DUMP—All of our harvesters are supplied with one of our well known swinging canvas straw dumps. We also furnish with each machine an extension carrier that separates and saves the chaff and scatters the coarse straw over the ground. This attachment works perfectly and has practically solved the straw problem.



STRAW CARRIER.

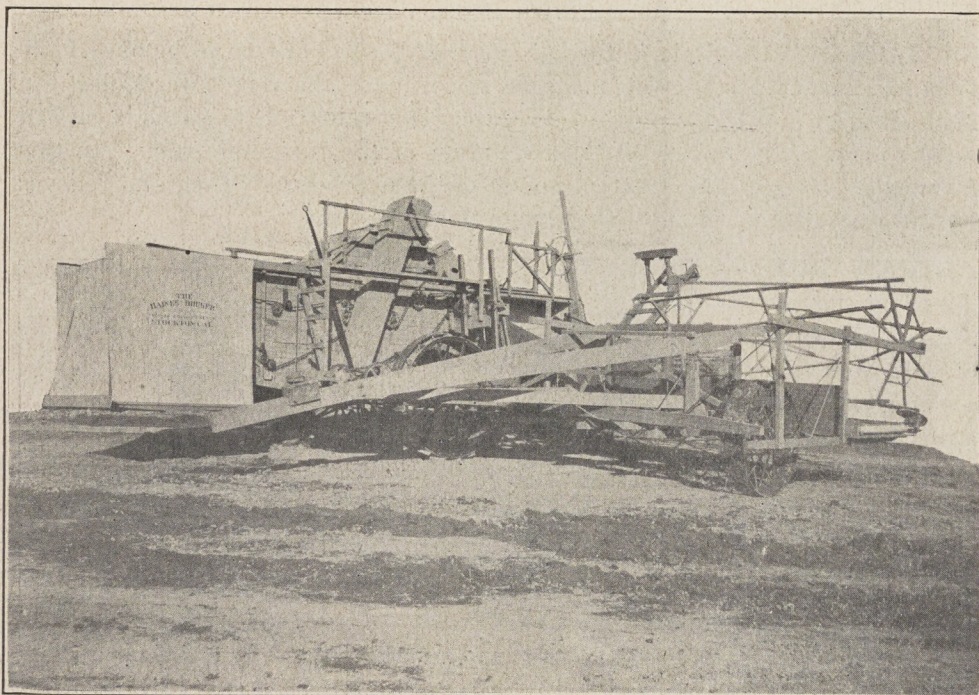


GRAIN CARRIER.

RUNS—All our draper and elevator runs are ironed. This lessens the friction, lightens the draft and adds life to the draper and carriers. Space will not permit us giving a description of all the working parts of our Combined Harvesters. Every minor part has been given its proper consideration and it is this perfection of detail that goes to make up a perfect machine.

WET WEATHER—The unusually wet season of 1907 was a thorough test for the Combined Harvester and it was conclusively demonstrated that the Haines-Houser Harvester is the most practical machine to harvest a crop with under any condition. Grain uncut will dry out faster than when put in the stack, and when grain is dry enough to put in the stack it is dry enough to put in the sack. There is absolutely no reasonable argument against the use of our Combined Harvesters

THE HAINES-HOUSER HEADER.

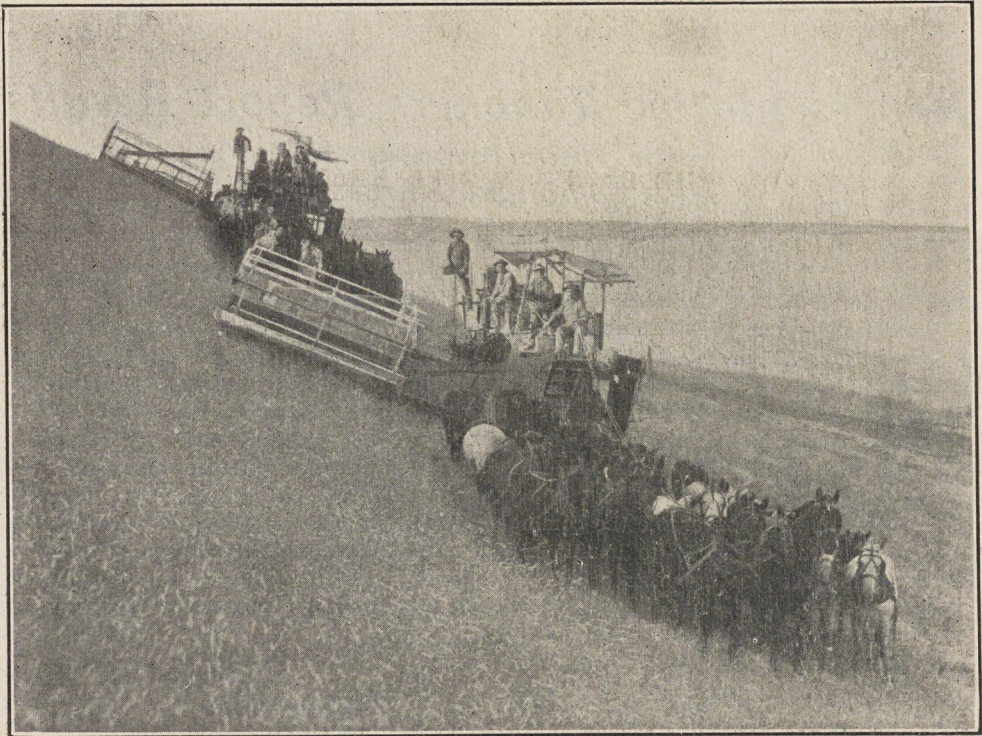


The above cut shows our improved modern header. It is simple, well designed, light and durable, and has fewer parts than any header ever constructed. It is only hinged to the harvester at two points and in such a manner that the header spout always remains practically the same distance from the feeder house. This is a very important feature and insures a nice even feed to the cylinder. It is necessary to remove only three timbers in order to detach the header from the machine. The header wheel sets close to the draper platform, insuring ease in operating over rough land. The header wheel axle is adjustable and permits the wheel being lined up at any time by simply adjusting two set screws. Our draper runs are all ironed, which lightens the draft and adds life to the draper.

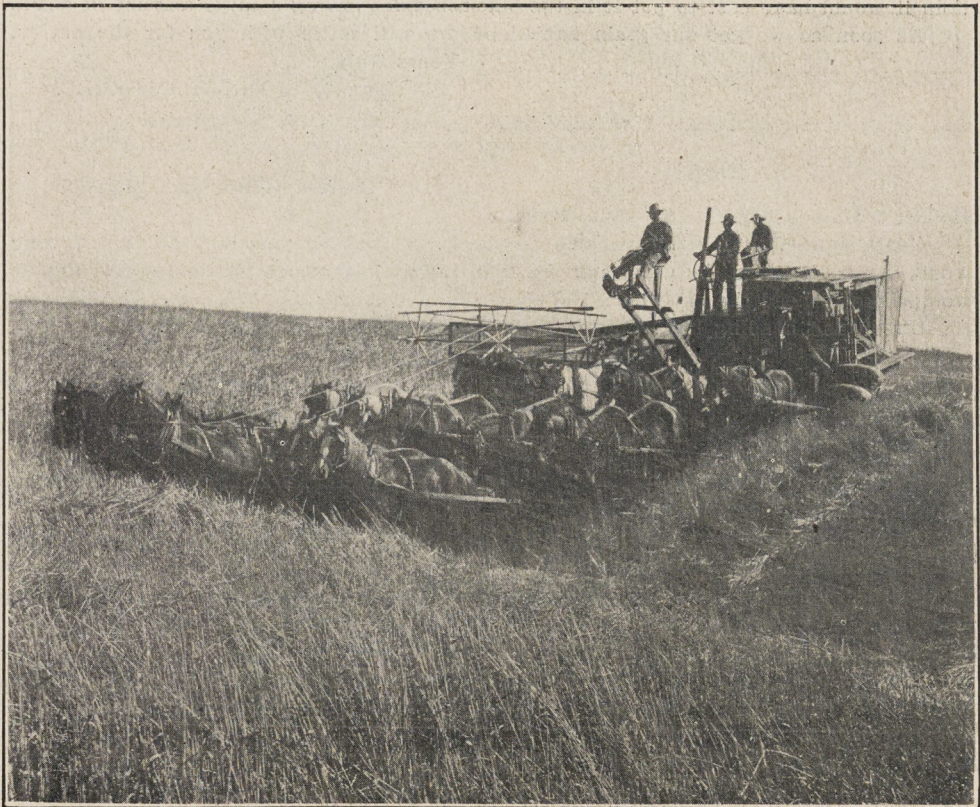
Our sickle bar (see cut on page 7) has ever been a source of admiration to all owners of "green machines" and is made of light angle steel rolled to our own specification. The guards are fastened to the bar by two double nut stove bolts, so in case of breakage a guard can be replaced in a minute.

The reel has an extra rigid shaft and is constructed in a substantial manner so that no tension rods are used. This eliminates the danger of the rods becoming loose and falling down in front of the sickle, which always results in something being broken.

The Haines-Houser Header is no experiment. It has been tried in the field and has proven its superiority over all other headers. It will surely please you.



Two Haines-Houser Harvesters operated by B. B. Gillespie, Ritzville, Wash.



A Beautiful Harvest Scene, Showing a Baby Haines-Houser Harvester in Operation Near Wilbur, Wash.

Representative Ranchers Report Results with Haines-Houser Side Hill Combined Harvesters

Wilbur, Wash., Nov. 30, 1907.

The Houser & Haines Harvester Co., Spokane, Wash.

Gentlemen—The 20 ft. Haines-Houser Harvester I ordered through your agent, W. F. Hankel Co., Wilbur, Wash., has given me the best of satisfaction. It makes one feel good that he has no threshing bill to pay. The first part of the season was almost too wet for any kind of a machine but the harvester did a better job for me than any stationary I ever had on the place. My advice to any farmer that has a half section of wheat land is to buy a Haines-Houser Harvester, thereby saving all the grain the ground raises for them.

Conditions being favorable the coming season, I intend to get another Harvester, as I think it is the only way to handle grain. Thanking you for the prompt attention show me the past season, I remain,

Yours very truly,

(Signed) S. P. JENSEN.

Wilcox, Wash., Oct. 19, 1907.

Houser & Haines Mfg. Co., Spokane, Wash.

Gentlemen—We are through harvesting and must say that the Haines-Houser Combined Harvester is a success. It did not cost us any more to put our grain in the sack than it would have cost to put it in the stack, besides saving a large amount of grain.

As soon as we get our grain hauled off we will settle with you for the extras.

Yours truly,

(Signed) JOHN W. CARROLL.

Dayton, Wash., Jan. 12, 1908.

Houser & Haines Mfg. Co., Spokane, Wash.

Gentlemen—Will say the machine purchased of you last year was all that anyone would want. It saved the grain and put it in the sack at about the same price that it would take to head the old way. The payment on the machine was about the same as the thresh and heading bill would be so a person still has the machine left.

Yours truly,

(Signed) FRED L. PORTER.

Colfax, Wash., Sept. 30, 1907.

Houser & Haines Mfg. Co., Spokane, Wash.

Gentlemen—Today we enclose you check in full settlement for the Combined Harvester purchased of you this season.

We are much pleased with the Harvester, and can recommend the machine as being a money maker for the farmers. We worked the same stock and men from start to finish, and cut over as rough land as there is in Whitman County.

The Company did everything they agreed, and the machine was better than represented. We were not out \$1.00 for repairs, and it cost us less than fifty cents an acre for our harvest.

With best wishes, we are,

Your friends,

BLOOM & HICKMAN.

Guy, Wash., Sept. 30, 1907.

Houser & Haines Mfg. Co., Spokane, Wash.

Gentlemen—We enclose our check as agreed in settlement for the Combined Harvester purchased of you this season. The machine gave perfect satisfaction, and we had the most successful harvest this season we have ever had. You can harvest with ease over the steepest hills, and the machine is certainly a money maker for the farmers.

Yours truly,

ROGERS & McDONALD.

Houser & Haines Mfg. Co., Spokane, Wash.

Dear Sirs—In reply to your inquiry as to how we like our Combined Harvester purchased of you in 1905, would say that we have had far better success with the harvester than any other farm machinery we have ever operated and it has given us far better success than your agent stated or we anticipated. Our first week's operation was 180 acres for six days. We consider it a perfect machine and a boon to the farmer on account of hired help. Will say that it only costs us 33 1-3 per cent of expense harvesting as compared with the old method.

We ordered our machine in October and a man makes no mistake getting his order in early.

Yours respectfully,

(Signed) HILLIARD & TADY,

Per R. S. Hilliard.

Washtucna, Wash., Aug. 26, 1904.

Houser & Haines Manufacturing Co., Walla Walla, Wash.

Dear Sirs: I finished harvesting on the 18th inst., after a run of twenty-five and a half days, without any break of any kind (except that of Sprocket No. 882), and that was my fault. I left the chain off of one of those beaters, so it caught as we started and broke the Sprocket.

I cannot say enough in praise of the Small Side Hill Haines-Houser. It is the most perfect machine that I ever saw. Yours respectfully,

(Signed) H. D. MAY.

Lamona, Wash., Jan. 28, 1907.

Houser & Haines Manufacturing Co., Walla Walla, Wash.

Dear Sirs: In reply to your inquiry as to how I progressed with my COMBINED HARVESTER, would say that I think we surpassed or equalled anything of the kind in the country.

This was the first season I ever ran a Combined Harvester, and we cut over some very rough ground and cut 1250 acres in 33 days, including three moves, averaging 37 and a fraction acres per day. A considerable wheat we cut went 740 lbs. to the draught of five sacks, which surpassed that threshed by the stationary rigs some 11 lbs. per sack.

My machine has a gear to run the Cylinder. While I would not have a gear to run or drive all the machinery, it is certainly a winner on the Cylinder and far surpasses the belt for this dusty country. We were practically out nothing for delays during harvest.

Would say as to expense, I can beat the old way better than one-half, or put the grain in the sack less than I can put it in the stack. Yours truly,

A. C. RICHARDSON.

W E M A N U F A C T U R E

Haines-Houser Side-Hill Combined Harvesters

Haines-Houser Standard Combined Harvesters

Stockton Reversible Gang Plows

Malsbary Grain Drills

Grain Seeders

Wood and Iron Harrows

Fresno Scrapers

W E A L S O H A N D L E

Harvester Repairs

Drapers

Straw Carriers

Grain Carriers

Sticks

Link Belting

Leather Belting

Oils and Compounds

Hardwood

Iron and Steel

Babbitt

Bolts

Harvest Supplies, Etc.



HOUSER & HAINES MFG. CO.

STOCKTON, CALIFORNIA

Branch Offices: Spokane and Walla Walla

